APPLICATION
SERVERS

NETWORK
CONTROLLERS

ACCESS POINTS

WIRELESS
USERS

110

110

108

111

109

112

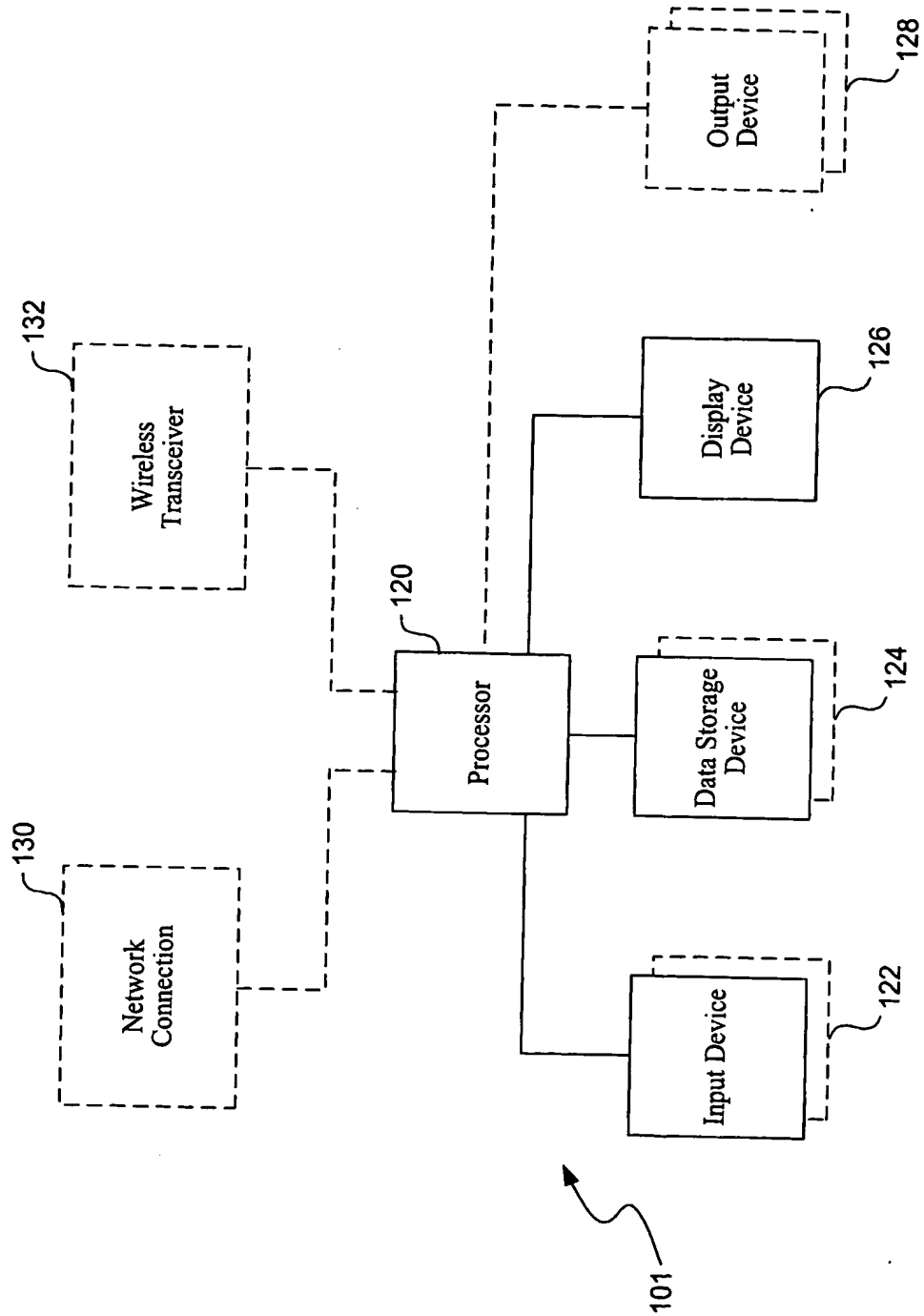104

105

106

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102
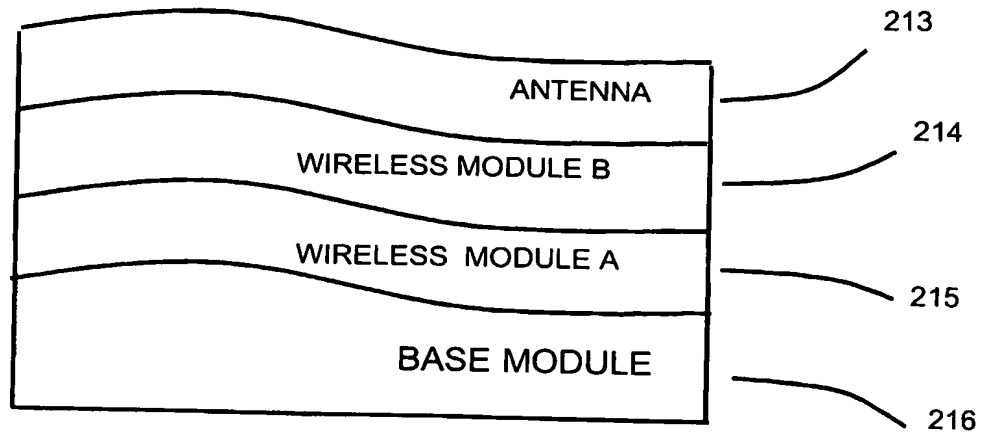
103

FIG. 1A WIRELESS LOCAL AREA NETWORK SYSTEM
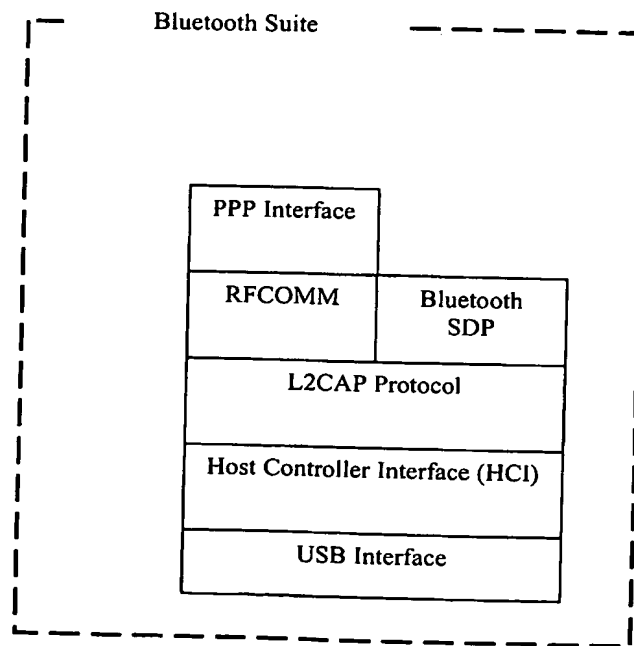
Fig. 1B

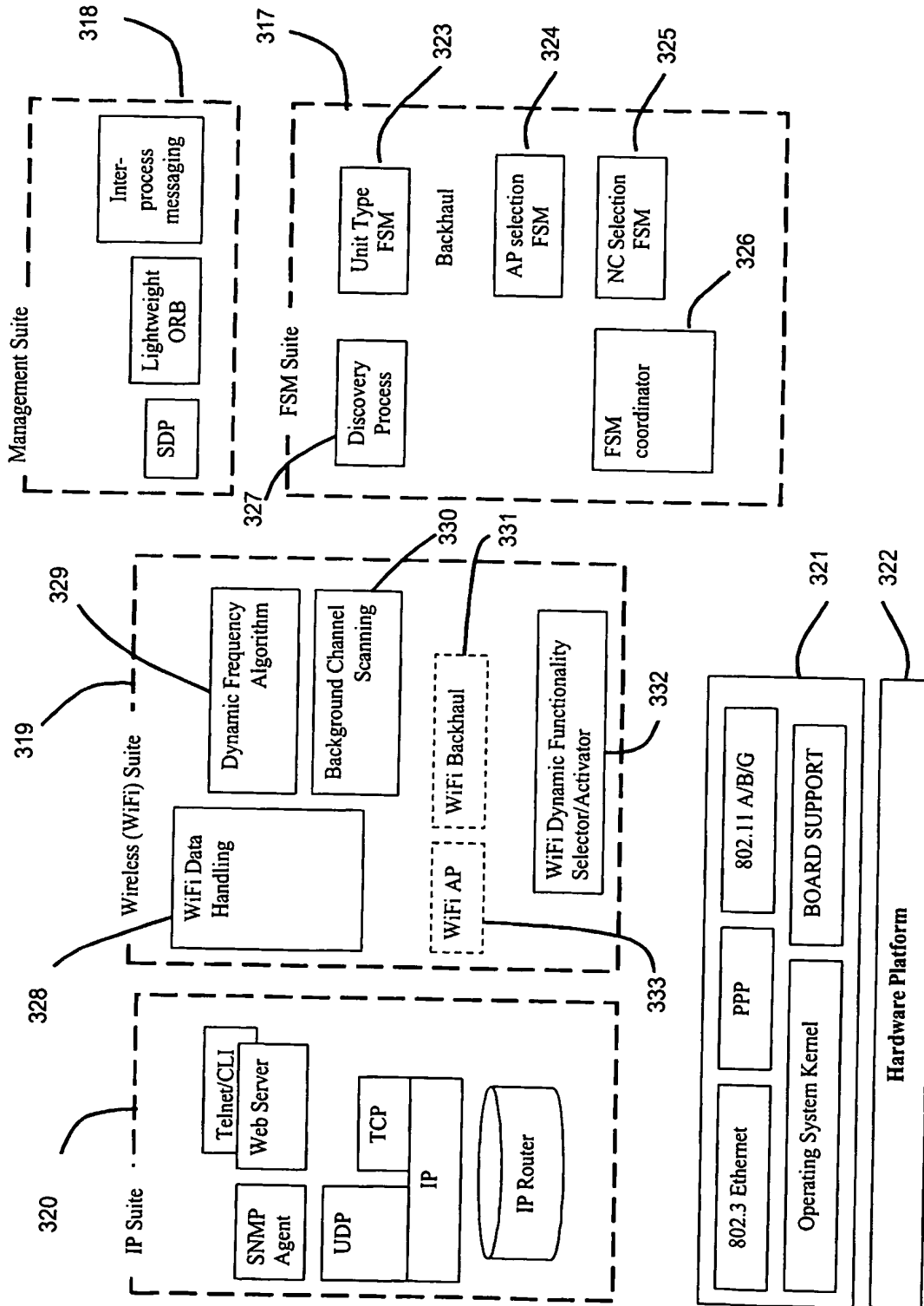**FIG. 2**   TYPICAL MODULE STACK

FIG. 4   BLUETOOTH SUITE

FIG. 3   NODE SOFTWARE BLOCK DIAGRAM

STATES / EVENTS	0 SELF_DISC	1 STACK_DISC	2 PENDING	3 AP	4 BH	5 BH_FINAL
radioInfo	init, rsi, next	-	-	-	-	-
Force BH Timer timeout	-	-	4	-	-	-
next	1	2	-	-	-	-
intraStackRprt	-	intra stack logic, start Force BH Timer	-	-	-	-
DHCP(b) Rprt	sdf, 2	sdf, 2	sdf, pndLogic	-	sdf, 5	-
DHCP(e) Rprt	sdf, 2	sdf, 2	sdf, pndLogic	-	sdf, 3	-
apQualified	3	3	3	-	-	-
bhQualified	5	4	4	-	-	-
Pending	-	2	-	-	-	-

FIG. 5   UNIT TYPE FINITE STATE MACHINE

iam802.11	only radio	iamBottomRadio	iamTopRadio	11A_aboveMe	iam11b	Result
FALSE	X	X	X	X	X	AP/B
TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	PENDING
TRUE	FALSE	TRUE	FALSE	FALSE	TRUE	PENDING
TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	PENDING
TRUE	FALSE	TRUE	FALSE	TRUE	TRUE	AP
TRUE	FALSE	X	TRUE	X	X	AP
TRUE	FALSE	FALSE	FALSE	X	X	AP
TRUE	TRUE	X	X	X	X	PENDING

FIG. 6   MODULE INTRA-STACK LOGIC

DHCP enabled	gateWay/server Found	Force BH Timer timeout	Result
FALSE	FALSE	FALSE	BH
FALSE	FALSE	TRUE	TRY_AGAIN
FALSE	TRUE	X	AP
TRUE	FALSE	X	BH
TRUE	TRUE	X	AP

FIG. 7   PENDING LOGIC TABLE

STATES EVENTS	0 Down init	1 AP_DETECTED i_C_cntr,C=N	2 AP_SELECTED _stopST
PosInfo	setStkName	-	-
Rcv_rport	Next, rcv_logic	rcv_logic	rcv_logic
rcv_SEL_AP	-	i C_cntr = 0	-
rcv_NEW_AP	-	C_cntr = 1, C = N 1	1
rcv_CAN_AP	-	i_C_cntr, if (i_C_cntr == max) then Next	-
Next	1	S=C,2	-
link_lost	-	0	0
force_sel	-	Next	-

FIG. 8   ACCESS POINT SELECTION FINITE STATE MACHINE

	Max Index	0	1	2	3	4	5	6	7	8	9	10	11
11a	8	6	9	12	18	24	36	48	54	0	0	0	0
11a turbo	8	12	18	24	36	48	72	96	108	0	0	0	0
11b	4	1	2	5	11	0	0	0	0	0	0	0	0
11g	12	1	2	5	6	9	11	12	18	24	36	48	54

FIG. 9   LINK BIT RATE ESTIMATED FROM RECEIVED SIGNAL STRENGTH INDICATOR